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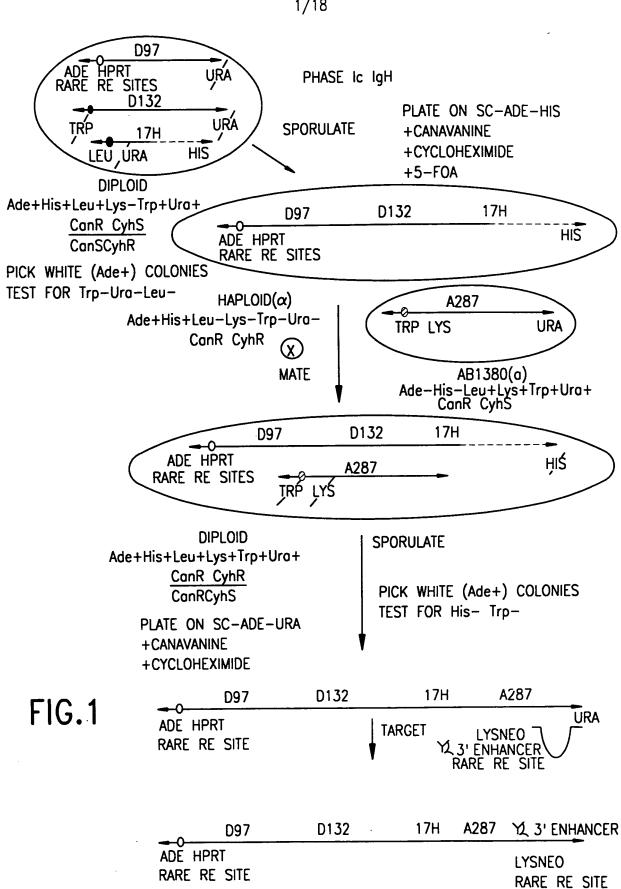
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Sheet 1 of 18

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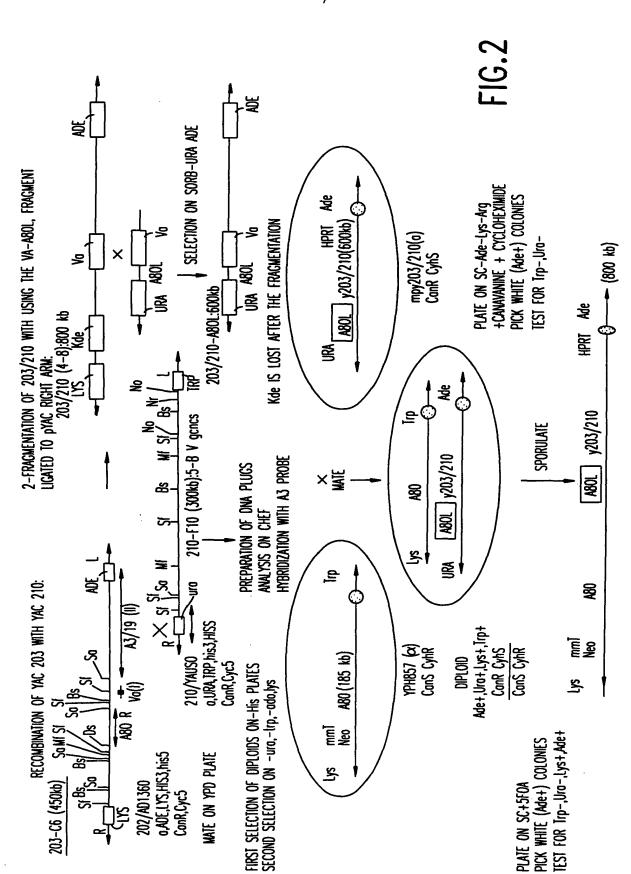
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R. Minako Pazdera, Reg. No. 46,984 Sheet 2 of 18



Applicants:
Application No.:
Confirmation No.:

Agent:

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HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE

R. Minako Pazdera, Reg. No. 46,984

Sheet 3 of 18

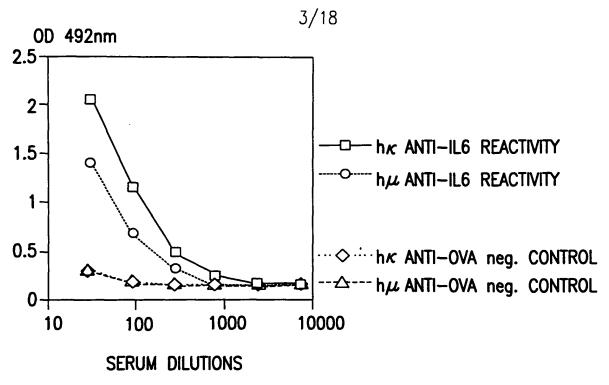


FIG.3

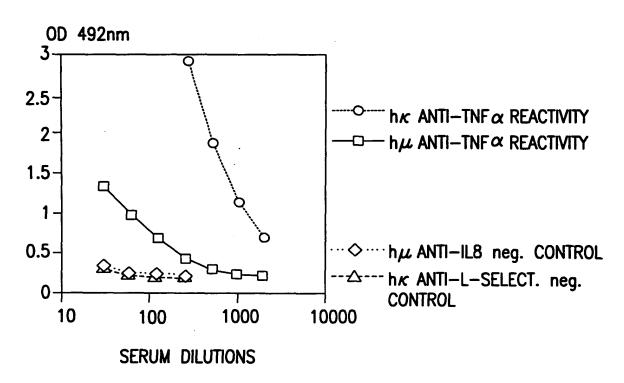
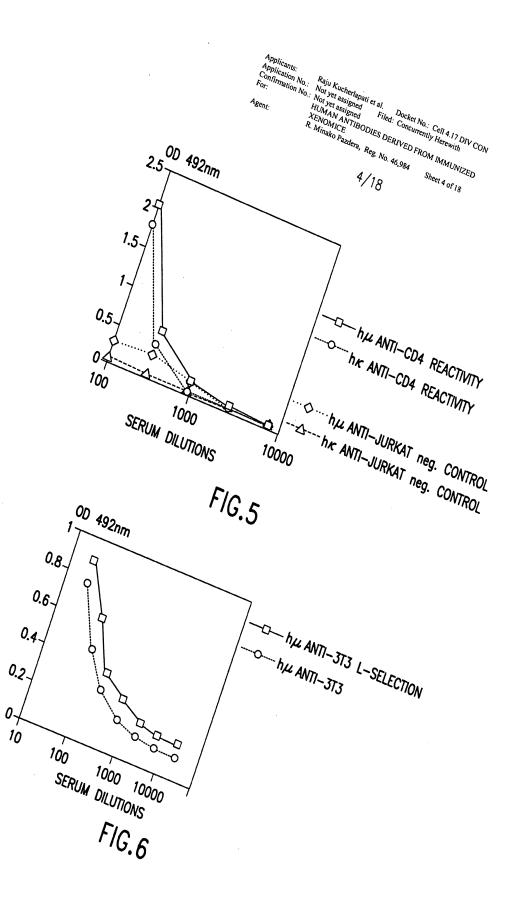


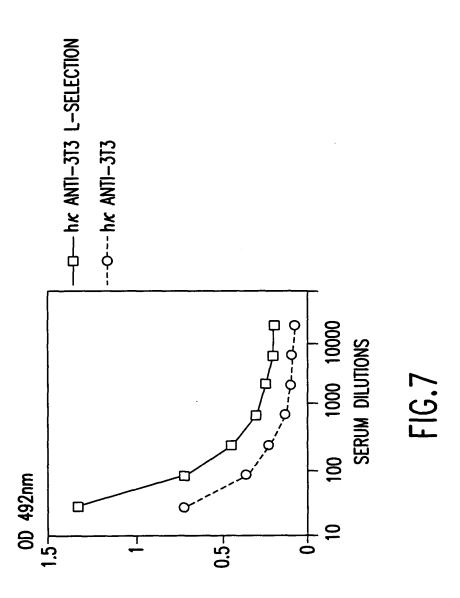
FIG.4



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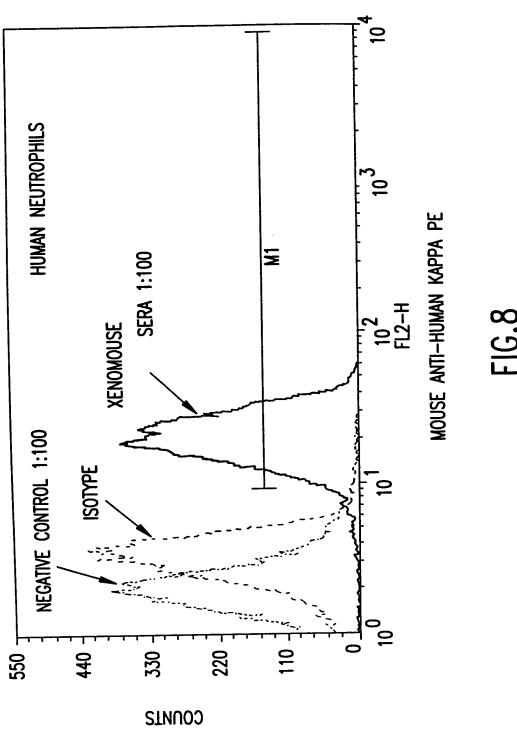
Agent: R. Minako Pazdera, Reg. No. 46,984 Sheet 5 of 18 Docket No.: Cell 4.17 DIV CON Filed: Concurrently Herewith

Sheet 5 of 18



Applicants: Raju Kuchertapau C.
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Applicants: Application No.: Confirmation No.: For:

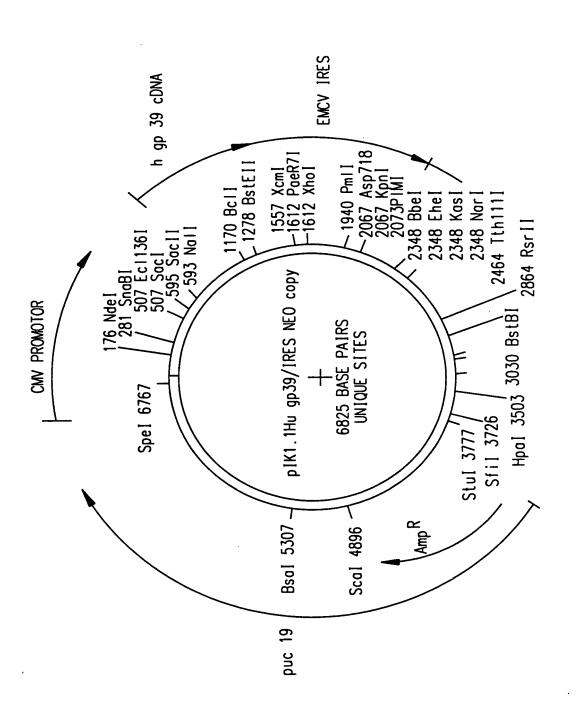
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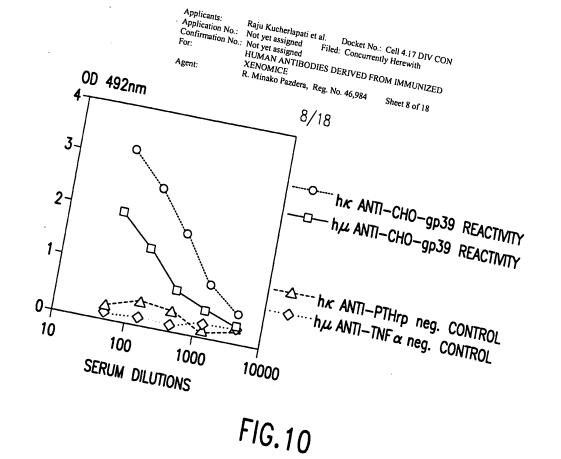
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XENOMICE

R. Minako Pazdera, Reg. No. 46,984

Sheet 7 of 18





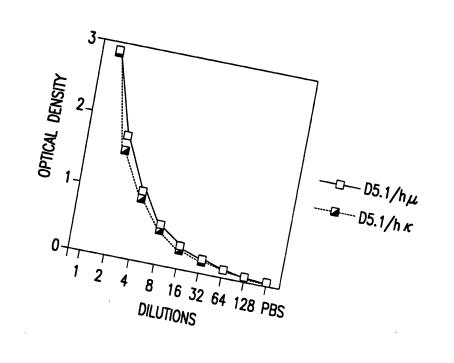


FIG. 11

Applicants:

Raju Kucherlapati et al.

Docket No.: Cell 4.17 DIV CON

Application No.: Not yet assigned For: HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE

Agent: R. Minako Pazdera, Reg. No. 46,984 Sheet 9 of 18

9/18

| | | CDR1_ | _ | | | | | |
|-----------------------------------|---------------------------------------|---------------|------------|--------------------------|--------------------------|--------------------------|------------------|--|
| | VH6 D5. 1.4 JH4 | | | GCCATCTCCG GCCATCTCCG | | | 50 50 | |
| Germline | D(N1) | | | | | | | |
| Germline | hMu | | | | | v H6 ==== | | |
| CDR2 | | | | | | | | |
| | VH6 D5. 1.4 JH4 | | | CAGGCAGTCC CAGGCAGTCC | | GCCTTGAGTG GCCTTGAGTG | 100 100 | |
| Germline | D(N1) | | | | | | | |
| Germline | hMu | | VI | 16 | | | | |
| | | | | | | ~. ~ | | |
| Germline Hybridoma Germline | VH6 D5. 1.4 JH4 D(N1) hMu | | | GGTCCAAGTG GGTCCAAGTG | | | 150 150 | |
| Germline Germline | | | | | | | | |
| OCI IIII IIIC | | | VI | H6 ——— | | | | |
| | VH6 D5. 1.4 | - | - | | - | GAACCAGTTC GAACCAGTTC | | |
| Germline Germline | JH4 D(N1) | | | | | | | |
| Germline | hMu | | | | | | | |
| | | | VI | 16 | | | | |
| Germline Hybridoma Germline | VH6 D5. 1.4 JH4 | | | | | TGTATTACTG TGTATTACTG | | |
| Germline | D(N1) | | | | | | | |
| Germline | hMu | | VI | 16 | | | | |
| | | | | | | | | |
| Hybridoma Germline Germline | JH4 | TGCAAGAGAT | | CTGGCGTCCT | CTTTGACTGC CTTGACTAGC | TGGGGCCAGG | 259 300 20 | |
| | | T | ATAGCAGCAG | | | | 15 | |
| Germline | | VH6 | Di | N1 — | JH4 | | | |

FIG.12A

Agent:

Applicants: Raju Kucherlapati et al. Docket No.: Cell 4.17 DIV CON
Application No.: Not yet assigned Filed: Concurrently Herewith
Confirmation No.: Not yet assigned
HUMAN ANTIBODIES DERIVED FROM IMMUNIZED

XENOMICE R. Minako Pazdera, Reg. No. 46,984

Sheet 10 of 18

| Germline Hybridoma Germline Germline Germline | D5. 1.4 JH4 D(N1) | GAACCCTGGT | CACCGTCTCC | TCA———————————————————————————————————— | CATCCGCCCC | AACCCTTTTC | - 43 - 15 : 27 |
|---|-------------------------|------------|------------|---|------------|------------|------------------------|
| | D5. 1.4 JH4 D(N1) | CCCCTCGTCT | CCTGTGAGAA | TTCCCCGTCG | | GCGTGGCCGT | 259 400 43 15 |

FIG.12B

Applicants: Raju Kucherlapati et al. Docket No.: Cell 4.17 DIV CON Application No.: Not yet assigned For: HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE
Agent: R. Minako Pazdera, Reg. No. 46,984 Sheet 11 of the second state Docket No.: Cell 4.17 DIV CON Filed: Concurrently Herewith

Sheet 11 of 18

| Germline B3 Hybridoma D5 Germline JK3 Germline CK | | | TGACCCAGTC | TCCAGACTCC | CTGGCTGTGT | CTCTGGGCGA |
|--|-----|----------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| Germline B3 Hybridomo D5 Germline JK3 Germline CK | | GAGGGCCACC ——ACC | ATCAACTGCA ATCAAGTGCA | AGTCCAGCCA | | TACACCITCCA TACACTITCCA |
| Germline B3 Hybridoma D5 Germline JK3 Germline CK | 1.4 | PACAATAAGAA CCAATAAGAA | CTACTTAGCT | TGGTACCAGC TGGTACCAGC B3 | | ACAGCCTCCT ACAGCCTCCT |
| Germline B3 Hybridoma D5 Germline JK3 Germline CK | | AAGCTIGCTCA AAACTIACTCA | TTTACTGGGC | CDR2 ATCTACCCGG | GAATCCGGGG | TCCCTGACCG TCCCTGACCG |
| Germline B3 Hybridoma D5 Germline JK3 Germline CK | | | AGCGGGTCTG | | | |
| Germline B3 Hybridomo D5 Germline JK3 Germline CK | | | | | GTCAGCAATA GTCAGCAATA | |
| Germline B3 Hybridoma D5 Germline JK3 Germline CK | | | | GACCAAAGTG | GATATCAAAC | |

FIG.13A

Applicants: Raju Kucherlapati et al. Docket No.: Cell 4.17 DIV CON
Application No.: Not yet assigned Filed: Concurrently Herewith
Not yet assigned HUMAN ANTIBODIES DERIVED FROM IMMUNIZED
XENOMICE

R. Minako Pazdera, Reg. No. 46,984

Sheet 12 of 18

Agent:

| Germline B3 | | | | | | |
|--------------|-----|------------|-------------|----------------|------------|------------|
| Hybridoma D5 | 1.4 | TGCACCATCT | GTCTTCATCT | TCCCGCCATC | TGATGAGCAG | TTGAAATCTG |
| Germline JK3 | | | | | | |
| Germline CK | | TGCACCATCT | | TCCCGCCATC CK | | |
| | | | | O.K | | |
| Germline B3 | | | | | | |
| Hybridoma D5 | 1.4 | GAACTGCCTC | TGTTGTGTGC | CTGCTGAATA | ACTTCTATCC | CAGAGAGGCC |
| Germline JK3 | | | | | | |
| Germline CK | | | | CTGCTGAATA CK | | |
| | | | | | | |
| Germline B3 | | | | | <u> </u> | |
| Hybridoma D5 | 1.4 | AAAGTACAGT | GGAAGGTGGA | TAACGCCCTC | CAATCGGGTT | GGGGAAAAA |
| Germline JK3 | | | | | | |
| Germline CK | | AAAGTACAGT | | TAACGCCCTC | | |
| | | | | —— ск — | | |

FIG.13B

Applicants:

Agent:

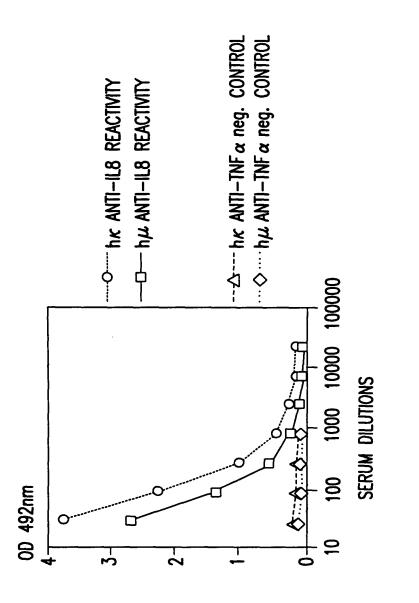
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Docket No.: Cell 4.17 DIV CON Application No.: Not yet assigned Filed: Concurrently Herewith Confirmation No.: Not yet assigned HUMAN ANTIBODIES DERIVED FROM IMMUNIZED

XENOMICE

R. Minako Pazdera, Reg. No. 46,984

Sheet 13 of 18



Applicants: Application No.:

Raju Kucherlapati et al. Not yet assigned

Docket No.: Cell 4.17 DIV CON Filed: Concurrently Herewith

Confirmation No.: Not yet assigned

HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE

R. Minako Pazdera, Reg. No. 46,984

Sheet 14 of 18

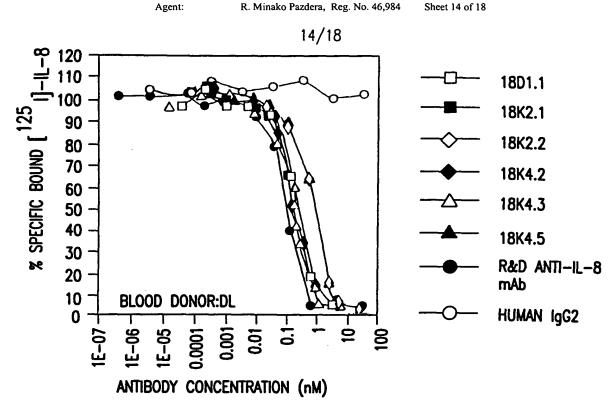
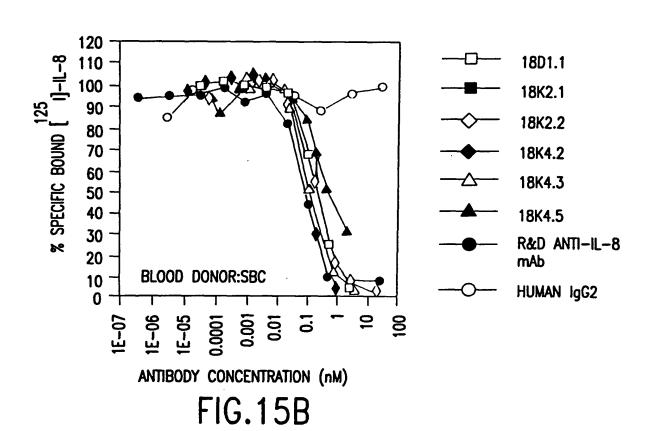


FIG.15A



Applicants: Application No.: Not yet assigned

Raju Kucherlapati et al.

Docket No.: Cell 4.17 DIV CON Filed: Concurrently Herewith Confirmation No.: Not yet assigned
For: HUMAN ANTIBODIES DERIVED FROM IMMUNIZED

Agent:

XENOMICE R. Minako Pazdera, Reg. No. 46,984

Sheet 15 of 18

15/18

| CCTGTCCCTCACCTGCGCTGTCTATGGTGGGTCCTTCAGTGGTTACTACTGGAGCTGGATCCGCC CCCGTCCCTCAAGAGTCGAGTCATCATATCAATAGACACGTCCAAGACCCAGTTCTCCCTGAAGT TGAGCTCTGTGACCGCCGCGGACACGGCTGTGTATTACTGTGCGAGAGA][GACTCCCC][ATGCT TTTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCTTCAG]CCTCCACCAAGGGCCCATCGG TCTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGC(GC)GCCCTGGGCTGCCTG **GTCAAGGACTACTTCC**

FIG. 16A

[CAGTCTCCATCCTCCTGTCTGCATCTGTAGGCGACAGAGTCACCATCACTTGCCAGGCGAGTC AGGACATTAGTAAGTTTTTAAGTTGGTTTCAACAGAAACCAGGGAAAGCCCCTAAACTCCTGATC TACGGTACATCCTATTTGGAAACCGGGGTCCCATCAAGTTTCAGTGGAAGTGGATCTGGGACAGA TTTTACTCTCACCATCAGCAGCCTGCAGCCTGAAGATGTTGCAACATATTTCTGTAACAGNATG ATGATCTCCC][ATACACTTTCGGCCCTGGGACCAAAGTGGATATCAAAC]GAACTGTGGCTGCAC CATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAACTGCCTCTGTTGTGTGCC TGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCC

FIG. 16B

Applicants: Confirmation No.: Not yet assigned

Agent:

Application No.: Not yet assigned

Raju Kucherlapati et al.

Docket No.: Cell 4.17 DIV CON Filed: Concurrently Herewith

HUMAN ANTIBODIES DERIVED FROM IMMUNIZED

R. Minako Pazdera, Reg. No. 46,984

16/18

| AGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTCAGTAGCTATGGCATGCACTGGNT CCGCCAGGCTCCAGGCAAGGGGCTGGAGTGGCTGGCAGAAATATCATATGATGGAAGTAATAAA TACTATGTAGACTCCGTGAAGGGCCGACTCACCATCTCCAGAGACAATTCCAAGAACACGCTGT ATCTGCAAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAGA][CCGAC TGGGGAT][CTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAG]CCTCCACCAAGG GCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGC(GC)GGCCCT GGGCTGCCTGGTCCAAGGACTACTTCCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCTC TGACCAG -

FIG. 16C

 CTGACNCAGTCTCCAGACTCCCTGGCTGTCTCTGGGCGAGAGGGCCACCATCAACTGCAAGT
 CCAGCCAGAGTGTTTTATACATCTCCAACAATAAAACTACTTAGCTTGGTACCAGCAGAAACCA GGACAGTCTCCTAAACTGCTCATTTACTGGGCATCTACCCGGAAATCCGGGGTCCCTGACCGATT CAGTGGCAGCGGGTCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGGCTGAAGATGTG GCAGTTTATTACTGTCAACAGTATTATGATACTCC][ATTCACTTTCGGCCCTGGGACCAAAGTGG ATATCAAAC]GAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAA TCTGGAACTGCCTCTGTTGTGCCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGTG GAAGGTGGNTAACGCCCCA

FIG. 16D

Applicants: Application No.: Confirmation No.: Not yet assigned

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Raju Kucherlapati et al. Not yet assigned

Docket No.: Cell 4.17 DIV CON Filed: Concurrently Herewith

HUMAN ANTIBODIES DERIVED FROM IMMUNIZED

R. Minako Pazdera, Reg. No. 46,984

Sheet 176 of 18

17/18

[TCCCTCACCTGCGCTGTCTATGGTGGTCCTTCAGTGGTTACTACTGGACCTGGATCCGCCAGCC CCCAGGGAAGGGCTGGAGTGGATTGGGGAAATCATTCATCATGGAAACACCAACTACAACCCG TCCCTCAAGAGTCGAGTCTCCATATCAGTTGACACGTCCAAGAACCAGTTCTCCCTGACACTGAG CTCTGTGACCGCCGCGGACACGGCTGTGTATTACTGTGCGAGAGG][GGGAGCAGTGGCTGCG][T TTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAG]CCTCCACCAAGGGCCCATCGGT CTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGC(GC)GGCCCTGGGCTGCCTG GTCAAGGACTACTTCCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCTCTGACCAGCGGC **GTGCACACCTTCCCA**

FIG. 16E

LTGACCCAGTCTCCATCCTCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGC GAGTCAGGACATTAGTAACTATTTAAATTGGTATCAACAGAAAGCAGGGAAAGCCCCTAAGGTCC TGATCTACGCTGCATCCAATTTGGAAGCAGGGGTCCCATCAAGGTTCAGTGGAAGTGGATCTGGG ACAGATTTTACTTCACCATCAGCAGCCTGCAGCCTGAAGATATTGCCAACATATTATTGTCAACA CTATGATAATCT]A[CTCACTTTCGGCGGAGGGACCAAGGTAGAGATCAAAC]GAACTGTGGCTGC ACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGACTGCCTCTGTTGTGTG CCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGG

FIG. 16F

Applicants:

Raju Kucherlapati et al. Application No.: Not yet assigned Confirmation No.: Not yet assigned

Docket No.: Cell 4.17 DIV CON Filed: Concurrently Herewith

HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE

R. Minako Pazdera, Reg. No. 46,984

Sheet 18 of 18

Agent:

18/18

AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCTGGGTG CGCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCA GATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTA CCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACA][GGACGG TG][ACTCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAG]CCTCCACCAAGGG CCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGC(GC)GGCCCTG GGCTGCCTGGTCCAAGGACTACTTCCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCTCT GACCAGCGGCGTGCACACCTTCCCACTGCCA

FIG. 16G

TGTCTGCATCTATTGGAGACAGAGTCACCATCACTTGCCGGGCAAGTCAGAGCATTAGCAACTA TTTAAATTGGTATCAGCAGAAACCAGGGCAAAGCCCCTAAGTTCCTGATCTATGGTGCATCCAGT TTGGAAAGTGGGGTCCCATCANGGTTCAGTGGCAGTGGATCTGGGACAGATTTCACTCTCACCAT CAGCAGCCTGCAACCTGNGGATTTTGCAACTTACTACTGTCAACAGAGTTACAGTAACCC]T[CTC ACTTTCGGCGGNGGGACCAANGTGGAGATCAAACIGAACTGTGGCTGCACCATCTGTCTTCATCT TCCCGCCATCTGATGAGCAGTTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAACTTCT ATCCCAGAGAGGCCAAAGTACA

FIG. 16H